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## Letters to the Editor: Brief Case Reports

### ***Life-Threatening Catatonia Associated With Coronavirus Disease 2019***



#### Case

TO THE EDITOR: The first reported case of catatonia associated with coronavirus disease 2019 (COVID-19) was recently published by Caan et al. (2020).<sup>1</sup> The patient was a 43-year-old man, without psychiatric history, who sought medical care for headache and fever. Although probable diagnosis was COVID-19, the confirmation came after several visits to the emergency department with other complaints, physical (back pain, spasm, coughing) and mental/behavioral (insomnia and anxiety related to the concern with COVID-19 and later on talking to himself, not drinking, eating, or showering). Catatonia was diagnosed during the third day of hospitalization, 18 days after initial symptoms, and was successfully treated with lorazepam (intravenous at first, then oral).

We present another case of catatonia and COVID-19 association that has some similarities but also significant differences, which make it worth reporting. In our case, he became critically ill, receiving intensive care, and his malignant catatonia<sup>2</sup> only resolved after electroconvulsive therapy (ECT).

A 50-year-old man with a mild intellectual disability was admitted in a catatonic stupor. Since the previous week, he had shown grossly disorganized behavior and marked social withdrawal, which evolved with reduced motricity, severe body stiffness, negativism, urinating and defecating in clothes, and refusal to feed and weight loss.

Two weeks before the initial symptoms, a friend from the workplace had completed suicide. Five days before admission, 1 of his brothers hanged himself, but he remained unaware of this fact. He had epilepsy treated with phenobarbital from childhood until adolescence (last seizure at 18 y of age). His deceased mother had late-onset bipolar affective disorder followed by dementia, and a sister has a depressive disorder.

On investigation, the main findings were normal brain computed tomography, light increased cerebrospinal fluid protein (55 mg/dL), high creatine kinase (8819 U/l), leukocytosis (20,800 mm<sup>3</sup>/L), and high platelet count (544,000 mm<sup>3</sup>/L). Intravenous hydration, electrolytic replacement, prophylactic anticoagulation, and diazepam 10 mg intravenously four times a day were started.

On day 2, he presented with tachypnea (26 bpm) and tachycardia (122 bpm), and COVID-19 was diagnosed by reverse

transcription polymerase chain reaction. The family denied previous respiratory symptoms. Computed tomography of his chest showed predominantly reticulated thin small opacities in frosted glass, with peripheral distribution in lateral and posterior lower lobes.

On day 3, he presented with fever (38.8°C) and hypoxia (O<sub>2</sub> sat = 91%). Nasal cannula oxygen therapy (6 L/min) and dexamethasone 6 mg once a day were started. The next day, azithromycin 500 mg once a day and amoxicillin/clavulanate 1 g 3 times daily were added. After 4 days, oral lorazepam 2 mg 3 times daily was substituted for intravenous diazepam. On day 6, because of bacteremia signs, piperacillin/tazobactam was started. Despite benzodiazepines, stiffness and diaphoresis remained extreme, and he remained in critical conditions. From day 10 to day 18, fever persisted. Aspiration pneumonia was diagnosed on day 13, treated with meropenem and vancomycin.

As severe catatonia persisted and clinical instability prevented ECT, low doses of sertraline (25 mg orally, once a day) and olanzapine (5 mg orally, once a day) were tentatively initiated.

On day 19, he was transferred from intensive care to the psychiatric unit, and finally, ECT with bilateral stimulus 30% was started. He showed a partial response, starting to say a few words, and showing light improvement in

stiffness. From the third ECT session on, he was able to engage in a conversation when prompted and showed marked improvement in stiffness. His recovery progressed gradually, and after the 5th ECT session, the enteral tube was removed; after the sixth session, he was able to stand up. From the seventh session on, he was able to walk by himself with some difficulty.

After 10 ECT sessions, the catatonic syndrome improved substantially. However, he was unable to recall anything that happened during admission and the weeks before.

He was discharged after 50 days of admission, fully recovered, with a prescription of olanzapine and sertraline. At discharge, as per his family, he was back to his usual self.

He denied depressive symptoms before catatonia and was not upset about these events. He did not present affective or psychotic symptoms and reported feeling ready to resume his life.

In these challenging times of the COVID-19 pandemic, an important lesson can be learned from this case: the value of close cooperation between internal medicine and psychiatry teams to attend the multiple needs of patients in which severe psychiatric and clinical manifestations intertwine.

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